RESEARCH

A REPORT OF THE
PLANNING AND RESEARCH BRANCH
MANITOBA EDUCATION

Manitoba
Education

Prepared by:
Linda E. Lee
Katherine Wong
Manitoba Education
Planning and Research

This report is intended for information only,
and does not necessarily represent the policy
or opinion of Manitoba Education.

Curriculum
Implementation:
Results, Issues,
and Strategies
84-03(a)

375.0097127
Lee, Linda.
Curriculum implementation : results, issues, and strategies.

(Manitoba. Manitoba Education. Planning and Research. Research ; 84-03 (a))
ISBN 0-7711-0238-0

1. Education--Manitoba--Curricula. 2. Curriculum planning--Manitoba. I. Wong, Katherine. II. Manitoba. Manitoba Education. Planning and Research. II. Title. III. Series.

Winnipeg, Manitoba

March, 1985

TABLE OF CONTENTS

		Page
	Summary	
I.	Introduction	1
II.	Background from the Literature	1
	1. Issues in Curriculum Implementation	2
	2. Critical Factors in Curriculum Change	2
III.	Summary of Results	3
	1. Departmental Implementation Practices	4
	2. The Level of Curriculum Implementation	5
	3. The Curriculum Implementation Process	6
	4. Supports For Curriculum Implementation	9
IV.	Issues	11
	1. Theory and Practice	11
	2. Use of Process	12
	3. Factors Affecting Process	13
	4. Professional Development	14
V.	Conclusions and Strategies	15
	1. Conclusions	15
	2. Strategies	16
	3. Further Suggestions and Observations	16

CURRICULUM IMPLEMENTATION IN MANITOBA: RESULTS, ISSUES, AND STRATEGIES

SUMMARY

Curriculum implementation is the process of putting into practice an idea, program, or set of activities which is new to the people who are expected to make the actual changes. Curriculum implementation in Manitoba does not occur as a single process. It varies not only among divisions, but also among schools in the same division. In some situations, curriculum implementation occurs as part of a planned and structured process, while in others teachers are simply left to use the new curriculum in the classroom without any professional development or other support.

This report provides an overview of the Manitoba situation, and relates findings of the Manitoba Curriculum Implementation Study to major implementation issues. The following elements are fundamental to future implementation efforts, as they are factors which promote effective implementation.

- Commitment by divisional administrators to the development of a structured implementation process.
- Knowledgeable and supportive school administrators.
- Understanding by school staff of the basic assumptions and objectives of the curriculum.
- Teacher commitment to the curriculum.
- Access to adequate and relevant support materials.
- Access to relevant professional development opportunities.
- A collegial and co-operative approach among all school staff.
- Recognition in the process of curriculum development and implementation of unique school and divisional situations.

From these elements some general strategies can be developed. These include:

- Use a planned and structured implementation process, which includes timelines, roles and expectations.
- Disseminate the implementation plan widely throughout the system.

- Provide professional development for school administrators to increase their knowledge of the curriculum and of implementation processes.

- Involve all professional staff, including librarians and resource teachers.

- Provide professional development which: begins with orientation and is followed by sessions meeting expressed teacher needs; allows teachers to participate actively; and, provides teachers with the opportunity to work together.

- Provide opportunities for teachers across the province to share teacher-developed materials.

L'IMPLANTATION DES PROGRAMMES SCOLAIRES AU MANITOBA : RÉSULTATS, QUESTIONS ET STRATÉGIES

RÉSUMÉ

L'implantation d'un programme scolaire, c'est la concrétisation d'une idée, d'une série d'activités ou d'un programme jusque là inconnus des personnes devant le mettre à exécution. Au Manitoba, il s'agit d'un processus complexe qui varie non seulement d'une division à l'autre, mais aussi d'une école à l'autre à l'intérieur d'une même division. Dans certains cas, la mise en oeuvre des programmes se fait de façon ordonnée et structurée tandis que dans d'autres, elle est entièrement à la discrétion des enseignants qui ne peuvent compter sur aucune préparation professionnelle ni sur aucune autre forme d'aide.

Ce rapport brosse le tableau de la situation au Manitoba et établit des corrélations entre les conclusions du rapport d'étude sur l'implantation des programmes scolaires au Manitoba et les principaux problèmes de mise en oeuvre. Voici les facteurs propres à assurer la réussite de la mise en oeuvre des programmes scolaires :

- Un engagement de la part des administrateurs divisionnaires à l'égard de l'élaboration d'une structure de mise en oeuvre des programmes scolaires.
- Des administrateurs d'école qui sont bien documentés et qui appuient les démarches qui sont faites.
- La compréhension par le personnel scolaire des raisons d'être et des objectifs du programme.
- Un engagement, de la part des enseignants, vis-à-vis du programme.
- L'accès au matériel didactique nécessaire et approprié.
- La possibilité d'obtenir une formation professionnelle complémentaire pertinente.
- Un esprit d'équipe et de collaboration de la part de tout le personnel scolaire.
- La prise en considération, au cours de l'élaboration des programmes et de leur mise en oeuvre, des situations propres aux écoles et divisions.

À partir de ce qui précède, il est possible de préparer certaines stratégies générales, comme :

- L'utilisation d'un plan d'implantation organisé et bien structuré qui précise les échéances, les rôles et les attentes.
- La diffusion du plan d'implantation partout dans le système.

- L'établissement d'une formation professionnelle à l'intention des administrateurs scolaires afin d'enrichir leurs connaissances sur le programme d'études et sur le processus d'implantation.

- La participation de tout le personnel professionnel, y compris les bibliothécaires et les orthopédagogues.

- L'accès à une formation professionnelle qui part d'une séance d'orientation pour ensuite traiter les besoins exprimés par les enseignants; cette formation doit aussi permettre aux enseignants de participer activement et leur donner l'occasion de travailler ensemble.

- Des occasions pour les enseignants de la province de partager leurs découvertes au niveau du matériel à utiliser.

I. INTRODUCTION

With a number of new curricula introduced in Manitoba over the last few years, the issue of curriculum implementation has gained increasing importance. It has become an issue not only for the Department, but also for school divisions and teachers. In response to this concern, the Planning and Research Branch, with the co-operation of the Curriculum Development and Implementation Branch conducted a major study centered on the issue of curriculum implementation. The study was designed to explore the process of curriculum implementation as it functions in Manitoba, to assess its effectiveness, and to suggest strategies to improve the process. Emphasis was placed on the implementation process and its elements, not on the evaluation of specific curricula.

The study contained a variety of components. First, an extensive review of the literature was undertaken, in order to provide theoretical background for the study. Following this, principals and teachers across the province were surveyed. After preliminary analysis of survey data, case studies were conducted in ten Manitoba elementary schools. Findings from all activities have been incorporated into this report on issues and strategies concerning curriculum implementation.

II. BACKGROUND FROM THE LITERATURE

Curriculum implementation is a complex and multi-dimensional process of putting into practice an idea, program, or set of activities which is new to the people who are expected to make the actual changes. The literature suggests three main and distinct stages involved in the implementation process. The first step, the awareness stage, involves familiarizing teachers and administrators with the goals, strategies, and teaching approaches of the overall program. The next stage, the adoption stage, invites a willingness to introduce the new curriculum, purchase textbooks and materials, and try a new unit with students. A sense of ownership is introduced, as educators begin to understand, accept, use, and promote the new curriculum. The last stage, the implementation stage, is marked by measurable differences in teacher classroom practices and in student learning outcomes. The use of revised materials and a teaching approach that incorporates the spirit and intent of the curriculum guide are discernible at this stage.

1. Issues in Curriculum Implementation

Effective curriculum implementation must consider and include the following elements:

- One hundred percent implementation is impossible and undesirable.
- The new curriculum is not fixed; it will be modified, developed, and adapted over time by teachers.
- Implementation is a process of clarification, whereby users and practitioners understand the new material, behavior, and thinking.
- Implementation is a highly personal and social experience for those involved.
- Interaction among teachers and assistance to them are important to implementation because it is a socialization and clarification process.
- The goal of implementation is not just to implement a particular curriculum, but to have an implementation "capacity" built into systems, schools and districts as a normal, regular procedure.
- Planning at the school and at the system level is a necessity if curriculum implementation is to be effective.
- The system and school plan to guide action must address teaching materials, approaches and beliefs, and monitor and gather information used to assess progress.

2. Critical Factors in Curriculum Change

Research evidence emphasizes ten factors critical to effective implementation: (1)

---

(1) For additional information see: Michael Fullan and Paul Park, Curriculum Implementation - A Resource Booklet, Ministry of Education, Ontario, 1981.

Characteristics of the Innovation

1. A perceived need for the change
2. Explicitness and complexity of the change
3. Availability of high quality materials

Characteristics of the School System Level

4. A history of successful change
5. High expectations and proper training of principals
6. Appropriate teacher and professional development
7. Strong board and community support

Characteristics at the School Level

8. Principal's actions support implementation
9. Teachers exchange ideas, experiences, and methods

Factors External to the School System

10. Manitoba Education and other agencies provide support.

Successful curriculum implementation does not require that all these ten factors be positive. It does require that all those involved - teachers, administrators, consultants, and students - understand that implementation is an ongoing process which requires time, effort, commitment, resources, and understanding.

III. SUMMARY OF RESULTS

All principals in the province were surveyed, and a 90% response rate was achieved. Teachers at both the elementary and secondary levels were surveyed; the focus of the elementary survey being social studies, and the focus of the secondary survey being science 100 and 101. These curricula were regarded as being old enough to have widespread familiarity, yet recent enough that elements in the process of implementation could still be remembered. Teacher response rates were 68% at the elementary level, and 77% at the secondary level.

As a follow-up to survey work, ten case studies were conducted at the elementary level. The case studies were designed to focus on issues raised by the survey data, and to provide a description of how implementation of social studies occurred in specific situations. For this latter reason, the ten schools illustrated diverse situations from across Manitoba.

In all data collection, emphasis was placed on the implementation process and its elements, not on an evaluation of the content of a particular curriculum. Therefore, although some results have direct relevance to a specific curriculum, the issues and strategies presented in this report have implications for the implementation of all curricula.

Preceding a summary of study results, a short note on the implementation of elementary social studies and 100/101 science will be presented. This will be followed by a discussion of teachers' apparent level of implementation. Findings concerning the process of implementation, material supports, professional development, and other influencing factors can then be related to level of implementation. Presentation of findings includes results from both the survey and case study data.

1. Departmental Implementation Practices

(a) Elementary Social Studies

The new social studies curriculum was developed by the Curriculum Development and Implementation Branch. It was first introduced into a number of pilot schools across the province in 1981-82. The interim guide, which provides an overview of the entire curriculum, was used in the pilot schools.

Specific grade level guides were available for the elementary grades in 1982. Manitoba Education sponsored general awareness inservices around this time. Not all teachers, however, would have had the opportunity to attend these sessions. In a number of school divisions, specific principal inservices were held. Implementation across the province is scheduled for completion in 1985.

(b) Science 100/101

These science curricula were introduced at the grade 10 level in pilot schools during 1981-82. Again, development of the curriculum had occurred through use of a CPRC working party. The revised guides appeared in 1982.

Manitoba Education provided extensive inservicing for grade 10 science teachers across the province. Implementation across the province is scheduled for completion in 1984.

2. The Level of Curriculum Implementation

- 20% of elementary teachers indicated that social studies was their complete focus, while 22% were trying out "one or two ideas to a limited extent".
- 13% of science teachers indicated that science was their complete focus, while 15% were trying out "one or two ideas to a limited extent".
- Three-quarters of elementary social studies teachers felt their level of implementation would increase, as compared with approximately two-thirds of secondary science teachers.
- For most teachers, implementing new curricula translates into "using" new curricula in their classrooms as new curriculum guides appear.
- Part of implementing the new science or social studies curriculum is the modification of the curriculum to suit the teacher's own style, the needs of students, and/or different classroom organizations, although teachers are often unsure whether this is legitimate.

3. The Curriculum Implementation Process

(a) The Curriculum Itself

Need For Curricular Change:

- Approximately 90% of principals, 68% of science teachers, and 74% of social studies teachers supported the change in curriculum.
- The most oft-cited reason for change in the science/social studies curriculum was that subject materials and topics were outdated and not abreast of contemporary society.
- Elementary teachers most often indicated they had been informed of the new curriculum by the principal (56%) while for secondary science teachers, the person most likely to inform them was a Manitoba Education consultant (46%).
- Both groups felt that this was the person who should inform them.
- Although most principals/teachers were aware of the existence of new curriculum, case studies found that this awareness was somewhat superficial.

Quality and Accessibility of Curriculum Guides:

- Almost all teachers had received curriculum guides for all subjects recently implemented.
- Approximately 95% of both science and social studies teachers indicated they had ready access to their grade level guides.
- Approximately 90% of both science and social studies teachers felt the respective guide was useful for teaching, easy to understand and well organized, and easily modifiable.

Flexibility/Timing

- Most teachers viewed implementation as a teacher-based process with built in flexibility.

- Teachers indicated a pragmatic and concrete approach to the process of curriculum implementation. As time progressed, teachers gained more confidence in having their own individual approach to and adoption of the new curriculum.

- Almost all of the people interviewed (ie. superintendents, principals, elementary and secondary teachers) expressed time/scheduling problems. They indicated too many curricula were implemented at the same time.

(b) Organization of Curriculum Implementation

Structure:

- Generally, there was little evidence of a formal or structured process, although some schools and divisions were moving in this direction.

- The role of the division in the structured process of implementation consisted of professional development for teachers, mapping out time schedules for implementation, and providing encouragement and support for principals.

- In some cases, the implementation process consisted of curriculum guides arriving in teachers' mailboxes.

Actors/Organizations Outside the School Setting:

- Principals and teachers felt that school divisions and Manitoba Education could offer more services. Faculties of education and the Manitoba Teachers' Society were perceived as having no role to play.

- Overall, teachers and principals tended to see Manitoba Education's role and responsibility as one of developing and promoting awareness of new curriculum; the division as providing support when needed; the faculties of education and the Manitoba Teacher's Society as having very limited roles.

- 70% of secondary teachers, 50% of elementary teachers, and 65% of principals felt it was chiefly the responsibility of Manitoba Education to provide professional development activities.

- Science teachers ranked Manitoba Education first and the school division second when asked who should sponsor inservices/ workshops, whereas social studies teachers reversed this order.

- Principals and elementary teachers viewed individualized assistance to teachers primarily as a divisional responsibility, whereas rural teachers and secondary teachers viewed it as a Manitoba Education function.

Actors/Organizations Within the School Setting:

- Principals were ranked second (behind "other teachers") as being helpful, by offering encouragement and advice.

- Three-quarters of principals believed they should be involved in professional development activities and providing individualized assistance to teachers.

- 40% of urban elementary principals felt they had great influence over teachers' professional development, as compared with 18% of principals in rural areas, and 17% in northern centers.

- Most teachers indicated a pragmatic, active approach to curriculum implementation.

- Teachers felt they had greatest influence over their own teaching strategies and the allocation of time for specific curriculum topics.

- As a result of high school timetabling, fewer secondary teachers felt they had great influence over the allocation of time for their subject area as a whole.

4. Supports For Curriculum Implementation

(a) Professional Development

- In general, there did not appear to be a relationship between attendance at inservices and degree of implementation; between the number of hours spent at inservices/workshops and teachers'reported implementation level; and, between the number of hours of inservicing and preparedness.

- 77% of secondary principals had not attended science inservices whereas 76% of elementary principals had attended social studies inservices.

- Urban (85%) and rural (77%) principals demonstrated a higher attendance at social studies sessions than did northern principals (37% had attended). This did not hold true for secondary principals where between 20%-25% had attended, regardless of geographic location.

- Elementary teachers were less likely to have attended social studies inservices than secondary science teachers were to have attended inservices.

- Secondary teachers had most often attended Manitoba Education inservices, whereas elementary teachers had most often attended divisional workshops.

- Elementary teachers who had participated in orientation sessions and had worked in grade level groupings, or with a colleague to develop units, felt most confident and most committed to the new curriculum.

(b) Material Factors

Curriculum Guides:

- Almost all teachers had received curriculum guides for all subjects recently implemented, and almost all appeared satisfied with them.

Student Texts and Supplementary Material:

- 85% of science teachers as compared to 60% of social studies teachers had access to approved text materials.

- The biggest concern for social studies teachers was the inadequacy and unavailability of text materials, whereas science teachers expressed concern over continuity among module materials.

Recommended Teacher Resources:

- Recommended teacher resources were more available to secondary teachers (63% for science vs. 50% for social studies).

- 70% of both science/social studies teachers felt they were appropriate, but only about half of each group had used the materials.

III. ISSUES

In an area such as curriculum implementation, it is evident that the important issues to be raised are not mutually exclusive. However, a number of issues necessitate distinct discussion; any overlap will serve to emphasize some of the more important aspects of these issues.

1. Theory and Practice

As is common throughout education, there are theories which practice is expected at least to resemble. Curriculum implementation is one area where, although practices and theory often do resemble one another, some of the discrepancies require attention.

(a) Development and Implementation

Although it is generally accepted that the separation of curriculum development and implementation is both difficult and undesirable, practice at one level separates the two, while at another level in the system it does not.

At the system-wide level, curricula are developed and timelines are set for their implementation. Manitoba Education may also provide introductory awareness sessions. However, the development of the curricula does not include any implementation plan and rarely seems to include provision for ongoing revision. Once the curriculum has passed through the pilot stage and the final grade level guides appear, "development" stops and "implementation" begins.

At the teacher level, however, part of implementing curricula is the modification of the curriculum to suit the teacher's own style, the needs of particular student populations, and/or different classroom organization (eg. multi-graded setting). This development is, in fact, necessary at the classroom level if successful implementation is to be achieved. Teachers, however, are often unsure if this is a legitimate part of "using" or "implementing" the curriculum.

(b) Stages of Implementation

The literature concerning curriculum implementation outlines three stages: awareness, adoption, and actual implementation. Following the literature, an attempt was made in the surveys and, to a lesser extent in the case studies, to discuss implementation using these stages. It became apparent, however, that in practice the stages were neither so clear-cut nor so ordered.

Teachers tend to feel an immediate obligation to begin "using" new curricula as soon as curriculum guides appear. Consequently, some content is used and a certain form of implementation has begun with minimal awareness, and no real adoption. The process is more an interactive one where the three stages mix according to the teacher's growth of understanding, commitment, and classroom use. A teacher's intellectual commitment may have to catch up to classroom implementation, after which time a fuller implementation, incorporating both the internalization of the curriculum goals and actual classroom use, may occur.

2. Use of Process

Few teachers view curriculum implementation in process terms, and, in fact, they may not need to do so. However, it is important that school divisions move towards a planned and structured process for the implementation of new curricula.

Not all teachers will, or should, achieve what has been called full implementation, as full implementation imples no further adaptation. However, a structured process which includes timelines, roles, and supports needs to be developed at a divisional level. If such a process is thoughtfully planned taking into consideration unique school situations, better implementation and less teacher frustration should result. Such a process provides direction (what curriculum should be emphasized this year?) and, as such, professional development activities and acquisition of support materials and resources receive a focus.

It appears that divisional involvement as well as knowledgeable and supportive school administrators are two key elements in developing and implementing a successful process.

3. Factors Affecting Process

There are two basic components or issues to be considered when discussing what impacts on teachers' ability to implement curricula: diversity of school situations (ie. the unique factors which always exist as a result of the setting), and factors which are more universal and more controllable.

(a) Diversity

Both the case studies and the survey data reinforce what is common knowledge, but not always the basis for common practice: that diversity exists among schools across Manitoba. Student background, access to resources and professional development, distances among schools, classroom organization (eg. multi-graded, team teaching), and even climate, are some of the variables which require consideration.

Not only must these be taken into account by curriculum developers, but also by those structuring implementation strategies. For example, getting teachers of one grade level together to develop model units is much more difficult when there is only one teacher of that grade in a particular school and the next school is many miles away. The unique and very real contexts in which divisions and schools operate, must be taken into account when establishing implementation structures.

(b) What Can Be Influenced

One cannot change the geography of Manitoba, however, there are certain factors which can be influenced. No matter what the setting, certain aspects can be fostered and sometimes controlled.

It is evident that administrative support and knowledge can assist the implementation process. This should occur at both the division and school levels. At the school level as well, involvement and co-operation among staff facilitates effective implementation. This co-operation, if it involves the librarian or designate (where applicable), also helps to solve the problem of lack of curriculum-related materials. As previously discussed, the use of a divisional plan or structure is another element which can be developed and adapted to assist implementation. These elements can be worked towards, no matter what the geographic location or socio-economic background of the students.

4. Professional Development

Although the issue of professional development has been raised as a component of other issues, it requires some specific discussion. Results of this study demonstrate that the fact teachers have attended some inservices appears neither to have any strong relationship with how well prepared they feel to tackle a new curriculum, nor the degree to which they have been able to achieve implementation. The type of activity appears more related than does the number of hours of professional development. It is not enough to schedule and provide professional development opportunities; these opportunities must be geared to specific objectives and to meet specific teacher needs.

Geography affects the structure and delivery of professional development, but this is not the only consideration. The number of teachers who require professional development and the grade level at which they teach are other mitigating factors. For example, a much higher percentage of science teachers had attended inservicing, but there is a much smaller number of teachers teaching 100/101 science than teaching elementary social studies. In addition, elementary teachers generally teach all or almost all subjects. The issues of time constraints and integration also need to be addressed. The time factor is a similar problem that encountered in providing inservices to principals, even in an overview fashion, concerning each new curriculum area.

Consideration of these factors is a requirement in planning professional development which is useful to teachers and which, consequently, assists the goals of the curriculum and its implementation.

IV. CONCLUSIONS AND STRATEGIES

Curriculum implementation in Manitoba does not occur as a single process. It varies not only among divisions, but also among schools in the same division. In some situations, curriculum implementation occurs as part of a planned and structured process, while in others teachers are simply left to use the new curriculum in the classroom without any professional development or other support.

Although no one judgement can be made as to whether the implementation of new curricula occurs successfully or effectively across the province as a whole, it is possible to identify from the results of this study, elements which help to make curriculum implementation effective and strategies which can be used. These are presented for general discussion purposes and are not intended to constitute targetted recommendations. Review by Manitoba Education staff will result in specific recommendations being made.

1. Conclusions

The following elements are required to promote effective curriculum implementation:

- Commitment by divisional administrators to the development of a structured process.
- Knowledgeable and supportive school administrators.
- Understanding by school staff of the basic assumptions and objectives of the curriculum.
- Teacher commitment to the curriculum.
- Access to adequate and relevant support materials.
- Access to relevant professional development opportunities.
- A collegial and co-operative approach among all school staff.
- Recognition in the process of curriculum development and implementation of unique school and divisional situations.

2. Strategies

The following are general strategies which can be adopted in order to promote effective implementation. It is important to:

- Use a planned and structured implementation process, which includes timelines, roles and expectations.
- Develop this plan using a cross-section of staff.
- Disseminate the implementation plan widely throughout the division.
- Provide professional development for school administrators to increase their knowledge of the curriculum.
- Involve all school staff, including librarians and resource teachers.
- Provide professional development which begins with orientation and is followed by sessions meeting expressed teacher needs.
- Provide professional development opportunities which allow teachers to participate (eg. development of units for their own classroom use).
- Provide professional development opportunities which allow teachers to work co-operatively (eg. grade level groupings).
- Provide opportunities for teachers across the province to share teacher-developed materials.

3. Further Suggestions and Observations

In the course of conducting this study, some specific problems and concerns were raised. The following are specific suggestions and observations which arose because of these concerns.

- Student teachers should be given the appropriate curriculum guides.

- The cultural differences of Manitoba students need to be taken into account not only in the development of curriculum, but also when recommending materials and developing tests.

- Teachers, especially at the secondary level, expect Manitoba Education to play a prominent role in curriculum development and implementation. This expectation does not extend to the faculties of education nor to the Manitoba Teachers' Society.

- Successful and well-supported piloting of curriculum is necessary if teachers involved in pilot situations are to become supportive of the curriculum and useful to others during general implementation.

- Teachers do not necessarily take advantage of professional development opportunities even if they are offered. Expectations of teachers in this area could be clarified.